#### CALIFORNIA DEPARTMENT OF FISH AND GAME

Testimony of George C. Heise, Senior Hydraulic Engineer

I, George C. Heise, provide the following written testimony under penalty of perjury in relation to the State Water Resources Control Board Notice of Public Hearing to Determine whether to Reconsider Order WR 2006-0018-DWR Denying North San Joaquin Water Conservation District's Petition for Extension of Time (Application 12842)

### Q1: Please state your name and your professional qualifications.

- 1. I have a Bachelors of Science Degree from California State University at Sacramento with an emphasis in water resources and soil mechanics. I am a licensed professional civil engineer. I am licensed in California and Arizona. I have been licensed in California as a civil engineer since 1983. I am presently employed by the California Department of Fish and Game (CDFG) as a Senior Hydraulic Engineer. I have been employed with CDFG since 1989. As a Senior Hydraulic Engineer with CDFG, I provide state-wide consultation to DFG staff on technical and engineering aspects of projects that impact fish and wildlife. I provide design consultation and review of fish facilities such as fish ladders, fish screens, other structural fish facilities and stream restoration. I designed the fish screens at the Parrott Phelan diversion on Butte Creek and have been on numerous fish screen technical advisory teams including those for Pacific Gas and Electric's Potter Valley Project, the Glen Colusa Irrigation District screen on the Sacramento River, the Anderson Cottonwood Irrigation District fish screen on the Sacramento River, and the Shasta Water Association fish screens on the Shasta River.
- 2. Prior to joining CDFG, I worked in the private sector as a Senior Civil Engineer for approximately nine years. As a Senior Civil Engineer, I was the project engineer, design engineer and construction inspector for the development of water resources projects, primarily small hydropower and irrigation facilities.
- 3. A true and correct copy of my curricula vitae is attached as CDFG Exhibit 2.

### Q2: Have you read Order WR 2006-0018-DWR?

4. Yes.

## Q3: Do you have any recommended changes to Order WR 2006-0018-DWR?

5. Yes. I recommend that Ordering Paragraph 3 on page 11 of the Order be changed to read as follows:

No water shall be diverted under this Permit until permittee has constructed a fish screen at the point of diversion to be used for the conjunctive use pilot project. The NSJWCD fish screen plans for such fish screen shall be developed in consultation with the CDFG. The final fish screen plans shall be submitted to the CDFG prior to construction to determine if the plans comply with the CDFG Fish Screen Criteria and are acceptable to the CDFG. The District shall provide the Division a copy of such determination by CDFG within thirty days of such determination. Construction, operation and maintenance of such fish screen are the responsibility of the permittee. If the fish screen is rendered inoperative for any reason, the permittee shall, within forty eight hours, notify the Division Chief and CDFG. The notice shall include a statement that either the equipment has already been restored and the date it was restored or it shall provide a plan and schedule for the immediate repair of the fish screen.

# Q3: What is the basis of this recommended change?

6. I think it is more efficient to have CDFG consulted during the development of the fish screen design, not just involved at the end of the process with a potential approval of the fish screen design. And, I think notification to CDFG of any malfunction of the fish screen that may be constructed at the proposed diversion site would allow CDFG to better assess whether and to what extent the fish screen is operating as planned. Requiring a plan for the immediate repair of the fish screen should help focus the District on solutions to the problem and not allow a potentially unscreened diversion in the Mokelumne River to operate longer than necessary to address the emergency.

I, George C. Heise, declare under penalty of perjury under the laws of the State of California that I have read the foregoing "Testimony of George C. Heise" and know its contents. The matters stated in are true of my own knowledge except as to those matters which are stated based on information and belief, and as to those matters, I believe them to be true.

Executed on May 22, 2007 at Sacramento, California.

George CHeise